



**UNITED STATES DEPARTMENT OF COMMERCE**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/698,204	08/14/96	KONUMA	T 0756-1553

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SIXBEY FRIEDMAN LEEDOM & FERGUSON  
2010 CORPORATE RIDGE SUITE 600  
MCLEAN VA 22102

EXAMINER

MILLER, H

ART UNIT PAPER NUMBER

2515

DATE MAILED: 03/10/97

Please find below and/or attached an Office communication concerning this application or  
proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

08/698,204

Applicant(s)

Konuma et al.

Examiner

Charles Miller

Group Art Unit

2515



☐ Responsive to communication(s) filed on \_\_\_\_\_.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-24 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☒ Claim(s) 11-24 is/are allowed.

☒ Claim(s) 1, 3-6, and 8-10 is/are rejected.

☒ Claim(s) 2 and 7 is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Iinuma (U.S. patent 4,688,074).

Iinuma illustrates a liquid crystal display device in figures 5 and 8 which includes:

1. a first substrate 11 having thereon a display region and a drive circuit region comprising a drive circuit 14;
2. a second substrate 20 opposed to the first substrate and extended to oppose both of said regions on the first substrate;
3. a sealing agent 13 partitioning said regions; and
4. liquid crystal material 24 incorporated between the substrates.

In column 1, lines 13-18, Iinuma describes using liquid crystal displays for computers televisions and other uses. Such liquid crystal displays inherently have a matrix of electrodes which from the dots described. The figures show the distance between the substrates substantially uniform through the display region and the drive circuit region.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iinuma (U.S. patent 4,688,074) in view of the applicant's admission of prior art.

Iinuma has been described above. Iinuma differs from the claimed invention in that they do not describe the material which is used to form the transistors. On pages 1 and 2, of the specification, the applicant acknowledges the well known fact that conventional displays have amorphous silicon transistors in the display region and drive circuits made of crystalline silicon transistors. Therefore, it would have been obvious to use the conventional choice of amorphous silicon transistors in the display region and drive circuits made of crystalline silicon transistors, in the display of Iinuma. Furthermore, while the applicant indicates that conventional displays comprise active elements such as TFT's, MIM diodes are also conventional active elements used in liquid crystal displays and would have been obvious to use in the display of Iinuma.

Claims 1,5,6 and 10 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Hu et al. (U.S. Patent 5,517,344).

The applicant is advised that the Hu et al. patent has a filing date in between the applicant's effective filling date and foreign priority date.

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Hu et al. illustrate a display in figures 6 and 7 which includes the top substrate extended over the driver circuits.

Claims 3,4,8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hu et al. (U.S. Patent 5,517,344) in view of the applicant's admission of prior art.

Hu et al. has been described above. Hu et al. differs from the claimed invention in that they do not describe the material which is used to form the transistors. On pages 1 and 2, of the specification, the applicant acknowledges the well known fact that conventional displays have amorphous silicon transistors in the display region and drive circuits made of crystalline silicon transistors. Therefore, it would have been obvious to use the conventional choice of amorphous silicon transistors in the display region and drive circuits made of crystalline silicon transistors, in the display of Hu et al. Furthermore, while the applicant indicates that conventional displays comprise active elements such as TFT's, MIM diodes are also conventional active elements used in liquid crystal displays and would have been obvious to use in the display of Hu et al.

Claims 2 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11-24 are allowed.

#### **REMARKS**

Applicant's arguments with respect to the rejected claims have been considered but are moot in view of the new ground(s) of rejection.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Miller whose telephone number is (703) 305-6202.

The fax phone number for this Group is (703) 308-7726.

Any inquiry of a general nature or relating to the status of this application or preceding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Charles Miller

February 28, 1997



**WILLIAM L. SIKES  
SUPERVISORY PATENT EXAMINER  
GROUP 2500**